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(Proj-40.163)APPLICATION OF THE SECTOR APPROACH
TO THE FIELD OF MATERIALS PLANS1. The Thesis

The thesis of "materially restrict or retard" via-a-via established Soviet production plans completely fails to recognize elemental conditions upon which these plans are based. Soviet plans are drawn on the basis of a system of material balances which consist of Soviet domestic production, existing Soviet inventories and planned Soviet imports. In no production activity to the knowledge of scholars acquainted with the Soviet economy do the Soviets plan a level of imports of material of a magnitude that failure to secure said imports would result in a significant underfulfillment of the plan. Thus, the very criteria upon which the sector concept rests is a condition which must be removed by accepted and implemented planning rules. Even accepting the sector concept as devils advocate, the range of substitution available to a modern industrial economy, particularly one with large material stocks, would reduce the impact of planning error to at best a limited restriction. The USSR with its established residual character of consumption probably enjoys more latitude of substitution than any other planned economy in the modern world. Multilateral import controls through COMECON may prohibit a slightly more rapid advance in Soviet Bloc production of electric energy than planned and may be expected, if changed radically, to exercise only a limited constraint upon the achievement of plan goals.

2. The Problem

Detailed bills of expenditures for electrical generating stations may be drawn up for selected nations in the Bloc including the USSR. However, neither

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The protection arrangements for East-West trade restrictions contain sufficient detail to isolate either domestic production of the individual commodities by nation within the Bloc, Bloc imports of these commodities, or Bloc requirements of these commodities. Thus there is at present no commodity information that is available with which to test the "sector approach" as it is presented in a critical commodity list. It is possible to hypothesize whatever list of commodities one may choose, but it is not possible to verify the sums of domestic production vs. imports vs. requirements on an individual commodity basis which is implied in the sector approach.

7. An Alternative Solution

Certain broad and general aggregative numbers exist through which a general test of the sector approach in electric power may be devised. The data available measure the specific commodities in the electric power sector but do provide a means for a test of the sector. See Table I.

TABLE I

ESTIMATED DOMESTIC PRODUCTION OF ELECTRIC GENERATING EQUIPMENT AND
ESTIMATED IMPORTS OF FREE WORLD ELECTRIC GENERATING EQUIPMENT FOR THE SOVIET BLOC
1951-1955

	1951	1952	1953	1954	1955	(1950) AVE. AVE.
1. Imputed domestic production of electric generating & accessory equipment	159,236	191,840	228,360	276,320	315,768	233,200
2. Imports of electric machinery apparatus & appliances*	36,020	26,990	26,030	23,160	NA	28,040
3. $\frac{159,236}{159,236}$ Per 1	22.6	14.0	11.4	8.4	NA	12.0

* Does not include boiler equipment.

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data in row 2 of Table I have been arbitrarily deflated to eliminate electrical utilization equipment. The deflation was based on the maximum probable shipments of generating equipment in any single year and provides, if anything, a distinct overstatement of Eltec reliance upon imports of electric generating equipment. Although dependence of Eltec generating capacity upon free world exports may have been considerable in the early part of subject period, Eltec imports of this equipment have declined annually and Eltec production of new generating capacity increased annually. Data in row 1 (Table I) were converted to increases in electrical generating capacity of the Eltec by pricing increases in capacity at an average expenditure for electrical generating equipment and accessories per unit increase in kilowatt capacity. Thus, an attempt has been made to compare wholly comparable units of expenditure and equipment. Boiler equipment which constitutes both the largest equipment expenditure item and the smallest item of Eltec import could not be compared for lack of any even arbitrary adjustment which could be made in steel imports.

A Gross Solution

Another, but more gross solution is possible. Soviet Eltec production of electric power may be compared to Soviet Eltec plans for power production during the plan period. Although additional export limitations were placed on Western export of power generating equipment at a time when Soviet power production plans must have been complete, Soviet production of electric power exceeded planned output. European Satellite power production plans, however, failed to meet plan goals although the margin of underfulfillment was uniformly rather small. See Table II.

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TABLE II

PLANNED AND ACTUAL PRODUCTION OF ELECTRIC POWER
BY SOVIET BLOC NATIONS WITH LONG TERM
PLANS ENDING IN PERIOD 1951-55 *

	(000,000,000 Kilowatt Hours)	
	<u>Planned</u>	<u>Actual</u>
Bulgaria (1955)	1.8	1.6
Czechoslovakia (1955)	12.7	12.5
East Germany (1955)	29.6	28.7
Hungary (1954)	5.1	4.8
Poland (1955)	19.3	17.7
Romania (1955)	4.7	4.3
<u>USSR (1955)</u>	<u>162.0</u>	<u>170.0</u>
TOTAL	235.2	239.6

* Planned and actual annual production in terminal year of the plan.

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CENTRAL INTELLIGENCE AGENCY
Office of the Chief, Economic Research
Office of Research and Reports

Project Action Memorandum

Project No. 40.1639
Date: 19 September 1956

TITLE: Case Study in a Sector Approach to the Revision of CoCom Controls

REQUESTER: AD/RR

STATEMENT OF THE PROBLEM AND TERMS OF REFERENCE:

Problem:

Capability of the intelligence community to support a sector approach to the revision of the CoCom trade controls.

Terms of Reference:

To prepare an analysis of the electric power production sector as a case study in the use of a sector approach to the revision of CoCom controls. The results of this study will be forwarded in memorandum form to the AD/RR.

RESPONSIBILITY:

		<u>Man-hours</u>	<u>Due Dates</u>	<u>Concurrence (Initials)</u>
<u>Action Division:</u>	D/S			
<u>Branch:</u>	S/TR	20	21 Sep 56	<i>[Signature]</i>
<u>Contributing Division:</u>	D/M			
<u>Branch:</u>	M/EP	20	20 Sep 56	<i>[Signature]</i>
<u>Consulting Branches:</u>	I/EE			
	M/NF			
<u>Staff:</u>	St/PR	25X1A		<i>[Signature]</i>
<u>Principal Analyst:</u>	x4505		25X1A	
<u>Project Monitor:</u>	x2803			

This project will not delay completion of currently scheduled projects.
The classification of this project will be no higher than SECRET.

APPROVED: *[Signature]* Ch/E.

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